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ABSTRACT

This study examined the educational practices of eight secondary schools in Victoria, Australia, that contributed to improved student retention rates and achievement levels. Schools were selected based on identification of graduates of La Trobe University who had completed their studies in a minimum amount of time. Interviews were conducted with staff and students in Years 9, 11, 12 at the eight schools, and with community members. Findings indicate the following important factors in student retention: (1) parental and community support, including extensive community participation in school activities; (2) effective career and distance education programs; (3) individualized career and subject counseling for students; (4) study-skills support for students; (5) programs addressing gender stereotypical attitudes and postschool goals of students; (6) smaller class sizes with intense individualized support by teachers; and (7) effective work experience programs in which students had placements outside their community. In addition, the study identified barriers to student retention: economic hardships of rural communities; restrictions on resources and subject provision; community attitudes toward postschool options for students; and lack of positive role models for girls and Aboriginal students. This paper also reports on girls' perceptions concerning their schooling and the relationship of these perceptions to subject choice and career options; and factors affecting postschool options, such as parental and community expectations, geographic isolation, and the role of the school in subject and career advice. Recommendations are offered for improving the retention and academic achievement of rural secondary students. (LP)

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CHARACTERISTICS ASSOCIATED WITH SUCCESSFUL COMPLETION OF POST-COMPULSORY SCHOOLING AND HIGHER EDUCATION IN RURAL VICTORIA

D J Lloyd, J C Lloyd, V R Prain and K J Smith — Australia

ABSTRACT

This project has involved correlating the academic records of La Trobe University, Bendigo students who have graduated in minimum time with their regional secondary colleges and studying those Colleges' practices. A series of interviews and analyses was used to identified a range of practices that respondents believe to be associated with successful completion of year twelve studies.

The eight regional secondary colleges included in the study represent: successful institutions; a balanced mix of small, medium and large Colleges; a geographic spread through central and northern Victoria; and State and private colleges.

The study identifies that the successful Colleges have dedicated staff, including key people in leadership positions, who focus in a unified way on effective counselling about a realistic range of subject choices and career options for students. The colleges have structured career education courses commencing in or before years 9 and 10 which assist the integration of work and career issues into all curriculum areas, and strong community support for school programs.

The findings are considered in detail and are the subject of a series of recommendations for those involved with the provision of rural secondary education.

RC 020402

AIMS OF THE STUDY

The objective of the Country Areas National Component, to which this study is a contribution, is to assist secondary schools and community groups to improve the educational participation, learning outcomes and personal development of students disadvantaged by restricted access to social, cultural and educational activities as a result of geographic isolation.

The aim of this Component is to increase the number of students in prescribed country areas completing Year 12 and to expand the educational opportunities available to them. This component also aims to improve levels of student achievement and to reduce the incidence of gender bias in student choice, particularly among students from low socio-economic backgrounds.

This study aimed to identify the major factors affecting

1. Retention rates and achievement levels of rural student proceeding from Year 10 through to year 12.
2. Student subject choices and the impact of these choices on retention to year 12.
3. The influence of school-based career education at Years 10 and 11 on the career path aspirations of students.
4. Girls' participation rates to Year 12.

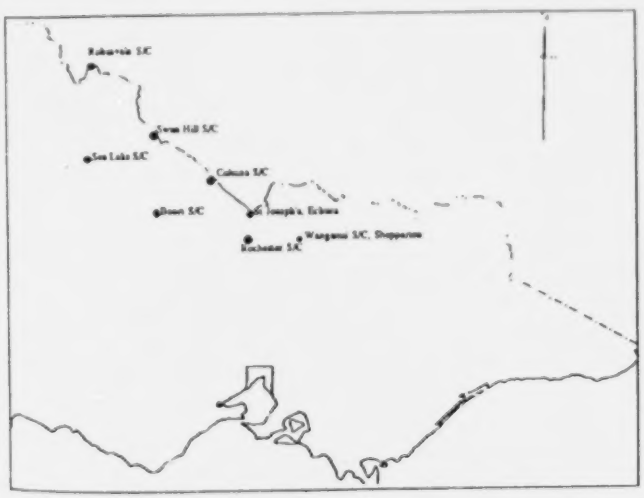
As the data collection phase proceeded other factors emerged and these will be dealt with in the body of the report and in the recommendations.

RESEARCH METHODOLOGY

The study involved selection of a range of regional secondary colleges from which students had progressed to university study and had, in high proportions, graduated in minimum time. This phase of the study required analysis of the La Trobe University, Bendigo's student record system and identification of groups of students from secondary colleges with higher than average progression rates since 1989, using programs developed for the purpose.

Participating Schools

Secondary College, location	Enrolment	Yr 12 enrolment	Catchment radius, km
Boort	185	40	40
Cohuna	365	40	60
Robinvale	455	48	60
Rochester	540	60	40
Sea Lake	170	19	40
St. Joseph's, Echuca	500	85	70
Swan Hill	1175	134	60
Wanganui Park, Shepparton	850	118	20



Students attending the Colleges are drawn from a range of rural communities including those that are predominantly farming (cropping, dairy or horticulture,) rural service centres or a regional centre. Two centres are developing a tourism industry in conjunction with more traditional rural activities.

The Project used a qualitative method of analysis of transcribed interviews with staff, students and parents of the eight schools identified. The design team chose to focus on a sample of schools of varying sizes to establish a broader picture of relevant factors in the study. School enrolments varied in the sample schools from 170 students to over 1,100.

The project had a Design Team which was based at La Trobe University, Bendigo and met on a regular basis from late 1992 through most of 1993.

The research design consists of the following phases: a pilot study to refine the research methodology; and data collection from the other participant schools.

Data were collected through interviews of administration staff, teachers, community personnel and students in eight Secondary Colleges in Northern Victoria from August to October, 1993.

The Pilot Study

One Secondary College was chosen for the pilot phase of the research program. The planning aspect of the project then proceeded as follows:

a) Preparation and refinement of 'screening' questionnaires to be administered to all students at Years 9 and 11.

b) Preparation of a semi-structured interview format to be carried out with a representative selection of students selected from the screening questionnaire (available on request).

Data Collection was carried out as follows:

a) Initial screening of students. The questionnaire was administered by the Principal of the school during the week prior to the interview phase. The questionnaire was designed to sort students initially according to the following categories.

Intend to:	leave	not leave
A supportive learning environment	3	3
Non-supportive learning environment	3	3

An attempt was made to select the 12 students on the basis of the above grid. In addition 'intuitive' insights from teachers influenced the selection process.

b) Students were interviewed using a semi-structured format. Interviews were tape-recorded. This process occupied 10-15 minutes of each student's time.

c) Administrative staff, teachers and community personnel were also interviewed through a semi-structured procedure.

d) All interviews were transcribed for analyses.

Following the pilot phase of the research a teleconference was held with participants to that stage to evaluate the pilot study procedure. This involved the key members of the project team and the Principal and Deputy Principal of the pilot Secondary College.

As a result of the evaluation it was decided to eliminate the initial screening phase for the main section of the project. This was seen to be too cumbersome to administer to all students in Years 9, 11 and 12 and generally teachers could be relied on to select a balanced range of students for the interview phase. Also a slightly revised interview schedule was drawn up.

The Study

The main section of the research project involved the following steps:

- Administration of semi-structured interviews to 12 students (randomly selected but with gender balance) from each of the Years 9, 11 and 12.
- Interviews with the Principal, Deputy Principal, Careers teacher and two other teachers.
- Interviews with two and sometimes three community members. These were usually people with a long-standing association with the school concerned (e.g. School Council member).
- All interviews were tape-recorded and transcribed.
- Transcribed material was analysed according to the broad research questions identified as relevant in the Victorian rural context.

FINDINGS

This study has identified the following as important factors in students' retention to Year 12:

- Parental and community support and extensive community participation in school activities
- Effective school programs and structure in relation to career education, subject choices and subject delivery including distance education
- Career education programs that were integrated into the curriculum from junior secondary level
- Individualised expert career and subject counselling for students in terms of VCE course and subject selection and post-school goals
- Effective pastoral and study skills support for students
- Specific programs to address gender-stereotypical attitudes and post-school goals of students
- Generally smaller class sizes and intensive individualised support by teachers
- Effective work experience programs where students had placements beyond the immediate environment

The following barriers to participation and student retention to Year 12 were identified:

- Economic hardship for rural communities
- Restrictions on resources and subject provision in some schools
- Community attitudes towards, and knowledge of, post-school options for students
- Lack of positive role models for girls and Koori students within a local community

The findings in both caregories are considered in more detail in the sections below.

Facilitating Retention and Participation in Year 12

This study has identified the following factors as important in rural students' retention to year 12 :

Parental and Community Support
School Programs and Structure in Relation to Career Education
Student Work Experience

Parental and Community Support

All students in the study acknowledged the crucial role of parental encouragement in the decision to complete year 12. As indicated elsewhere in this study, most parents perceived the necessity of their children completing year 12 as an essential preparation for work and further study. The majority of parents believed that there were minimal future work prospects for their children in the local region. All schools in the study had very strong community support for VCE programs, evidenced by the work of service clubs in career education, the strong support of local industries in work experience placements, and the support for curriculum innovation at the senior level of the school.

A strong positive community perception of the school linked with extensive community participation in all aspects of the schools' operation were clearly of fundamental importance to effective student retention to Year 12.

School Programs and Structure in Relation to Career Education

- Staffing Allocation for Career Education

Schools varied in their allocation of staff and professional development support for career education from a full-time Career Education Teacher in two schools to a school where a teacher conducted Career Education as an addition to a full teaching load. Some schools had more than one staff member teaching career education courses. In more than one school there was an informal recognition that all staff teaching at senior level in the school had a major role to play in advising and monitoring students in terms of course progress and career advice. In schools where there was a substantial staff time allocation to career education an intensive, individualised career advice process for students was possible. This was achieved by all schools in the study.

- Role of Career Education Teacher

Effective strategies to advise and support students in career and subject choices include the following:

(1) Career teachers at some schools give all year 10 individual counselling in year 10, and two interviews with each student in VCE in both year 11 and 12. One career teacher asked each student in Year 11 to formulate at the start of the year a career plan and the steps to achieve it. This plan was later reviewed by the career teacher and each student.

(2) Some schools run very intensive career programs in year 10 with students expected to research possible career options and career pathways using the Job And Course Explorer program (JAC) and then organise mock planners for VCE in terms of appropriate subject choice, with follow up mock interviews with potential employers in the chosen career field.

(3) Career teachers run evening career expos, career week programs, and organise for ex-students to talk to current students about their studies and the issues of living-away-from-home.

(4) Special guest programs and speakers have been organised at several schools including Women Talk Work, and drama and musical programs oriented to work issues.

(5) All career teachers in the study had developed dedicated areas for the display of, and counselling on, career matters. These included career reference centres in the library, and classrooms permanently established with computer and other facilities for students.

(6) All career teachers coordinate work experience although students are expected to initiate contact for placement themselves. Some career teachers are extremely enterprising in making sure that students are supported in matching their work experience interests to an appropriate context. Students in the participant schools have had work experience in the last five years in Darwin, Canberra, Sydney, and Melbourne, as well as the major cities and town within the immediate region.

(7) All career teachers in the study coordinate a career and work education program in Melbourne for year 11 or 12 students. This program varies in length across schools from three days to two weeks. The program includes visits to the Career Reference Centre, tertiary institutions, and various orientation activities. One career teacher organises for groups of two or three current students to have a meal and sometimes attend classes with an ex-student who is studying in Melbourne.

(8) Some career teachers liaised extensively with subject teachers in years 7-10 to ensure that the content in these subjects focused on possible career options related to this content.

In summary there are a wide variety of activities involved in the organisation and delivery of effective work and career education. As one career teacher commented:

> Unfortunately the role of the careers teacher in most schools is very much misunderstood. A lot of my peers, and a lot of peers of other career teachers think that because you don't teach much, you are not doing anything. They really have no idea of what you are doing. The position does not get the recognition it ought , or the time it ought

School Programs in Relation to Career Education

- School Programs Years 7-10

To facilitate effective student retention at school including effective subject and career choices for VCE all participant schools run a range of programs in these year levels. Effective Strategies include the following:

(1) Vertical Modular grouping of subjects in Years 7-10. This gives students practice in choosing from a wider range of subject choices and also first-hand experience of these subjects.

(2) One school allocates a teacher as a personal tutor to groups of six students. This teacher is a key contact person

throughout the students' secondary schooling (years 7-12). This tutor offers advice and support in pastoral, welfare, and subject matters, study skills, and career choice. As a result of this personalised program there is effective monitoring and support of students throughout their years in the school. Other schools run variations on this program with peer groups, home groups and welfare groups coordinated at different year levels. Clearly individual and subject teachers often play a crucial role in the formulation of students' career aspirations.

(3) Several schools had structured their year 9 -10 subject offerings in half-year modules to give students a broad experience of subjects on which to base VCE subject choices. Some schools have focused specifically on technology subjects in years 9-10 to encourage so-called "non-academic" students to pursue VCE study in this field. One school was offering Units 1 and 2 of VCE subjects to year 10 students to give these students a VCE sixth subject to strengthen their chances of tertiary entrance.

(4) All schools ran intensive VCE subject-selection evenings, lunchtime discussions, and counselling sessions with parents and students to familiarise them with tertiary course prerequisites, and effective groupings of subject choices for VCE. In some schools all year 10 students are counselled individually about their subject and career choices.

(5) To support Koori students in developing and practising study skills one school developed a Koori Homework Centre which was run after school and staffed by teachers and the Koori educator. This was run in a hall for an hour after school with students bussed home afterwards.

(6) One school had a formal policy of encouraging teachers in the presentation of their curriculum areas in years 9-10 to focus on the possible careers arising from expert knowledge in those curriculum areas. In year 10 at one school, for instance, all students in Science research a science career.

(7) All schools ran a version of career education as an elective or compulsory Year 10 semester subject. This subject is usually tied to work experience of one or two weeks in Year 10, with a further work experience of one to two weeks in year 11.

(8) Many of the schools in the project run study camps of up to a week for particular subjects or study skills in years 10 and 11.

(9) One school has structured the coordination of VCE students around home groups rather than year level coordinators to enable a more personalised approach to monitoring individual student progress.

(10) In all schools Career teachers and VCE teachers had prepared information booklets to inform parents and students of subject choices in VCE. At one school the monthly newsletter was used to outline a range of study and organisational skills required for success at VCE level.

- School Programs for VCE Students

Many of the programs listed above continue through VCE studies with additional programs such as trips to Melbourne for up to two weeks for career education, with visits to metropolitan tertiary institutions and the Career Reference Centre as well as orientation to urban life.

- School Size and Class Size

Many school staff, parents and students commented on the small size of the school and senior classes as a very important factor in effective retention of students to Year 12. Under these conditions it was easy to create and sustain a personalised, caring ethos within the school where students were given intensive individualised support in their subject choices as well as in their social, academic and personal development.

Student Work Experience

The perceptions of parents, students and Career education teachers indicated that work experience in years 10-12 was an important factor for some students in encouraging them to complete year 12 studies. For some it clarified career and subject choices by persuading or dissuading them to pursue a particular vocation. For others it provided an additional motivation to continue study at school. For a very small minority of students it persuaded them to leave school before the completion of year 12 in order to pursue full-time work.

Barriers to Retention and Participation in Year 12

Participants in the research project have identified the following interconnected barriers to retention and participation in Year 12:

Provision of Programs and Resources

Community Attitudes and Knowledge

Economic Hardship

Provision of Programs and Resources

- VCE structure and subject requirements

The VCE structure and work requirements have undergone a range of modifications from 1991 to 1993 with a reduction in the range and scale of work assessed in some subjects. The majority of school staff believed that there was a sufficient range of subjects in the VCE, especially in relation to technology units such as Technological Design and Development, and Materials and Technology, to cater for students not suited to traditional academic subjects. However, the structure and work requirements were perceived by a small proportion of teachers in the project as not suitable for all senior secondary students, especially those with an orientation to more practical problem-solving. One senior administrator from a school claimed:

> Some kids have tremendous aptitude in certain areas which VCE does not cater for despite the fact that the Ministry says you can modify your courses...Kids were dropping out in the first six months because they knew they had failed a unit and even though the practical side of their subjects was brilliant, they are just not suited to writing things down and keeping a journal and things like that.

- Cutbacks to Career and Vocational Education Provision.

Nearly all the schools studied in the research project have been affected by the proposed and actual reductions to school funding, with subsequent cuts to the monies allocated to career education programs, staffing, excursions to Melbourne and provincial centres and provision of relief teachers. Many of the programs reported in this study will have their future implementation significantly modified by these cutbacks. One school which currently has a full-time career education teacher is currently reviewing this allocation with the possibility of the position being given half the present weighting. Generally schools perceive vocational education as a lower priority than the nominated national curriculum areas.

- Number of Subject Offerings in Smaller Schools.

While most school administrators and teachers in the study believed that the majority of student subject requirements at VCE level were being met by current provision, one administrator speculated that there might be advantages in the development of a local VCE college of 300 students in terms of broader subject choice and facilities for students in the region.

Community Attitudes and Knowledge

- Community Culture and Values

Teachers and administrators at more than one school believed that the traditional culture in the town with its heavy emphasis on sport and a social life for teenagers was a barrier in some cases to successful participation in VCE. As one administrator commented:

Our kids here have to make the commitment to give up sport if they are going to be successful. It's not just the sport, but rather all the injuries and the travelling.

- Koori Students and Role Models

Teachers and Koori educators reported that a significant problem in terms of the retention of Koori students to year 12 was the lack of positive role models of successful students at this level. A school with a Koori population of over seventy students had difficulty retaining Koori students into VCE because such a progression was not seen as routine for these students.

- Lack of Local Models of Career Diversity

Many staff acknowledged the problem that effective retention to year 12 often required students to have clear post-school goals in terms of career choice. However, many students were limited by their lack of first-hand experience of career options or their sense of community expectations. As one teacher put it:

> Most middle class professional people in the town are unfamiliar with the trade area, would not know what a tram driver does, never seen one in action. In many ways we are dealing with abstract tertiary courses, where they (the students) don't really know where they are leading, and we have had in the past this huge group of teachers going through and accountants. Because they know that those professions exist, and they know what they are like. But kids in the country really miss out in a wider range of newer professions, newer careers.

This narrowness of potential career options was seen as indicative of the general problems that faced all rural students in their participation in VCE. Agricultural and horticultural communities, especially at this time of economic recession and the withdrawal of services to larger towns and cities, provided limited local models of career diversity. This had a subsequent effect of tending to restrict students' retention to year 12 through an absence of clearly defined post-school goals.

- Economic Hardship

This study confirms the findings by Sheed and Lloyd (1990) that the costs associated with student retention to Year 12 and with transfer to tertiary or further study were a very significant barrier to some students' participation. School staff reported that this was a factor in non-retention of students in all the participant schools.

Factors Affecting Girls' Subject and Career Choices in Upper Secondary School

This section reports on the factors relating to girls' choice of subjects in the senior secondary years in rural areas and the relationship of these choices to a range of school and community issues impinging on future career options.

The study has identified the following factors as central to the subjects choice/career option process for girls:

Specific Programs for Girls

Career Awareness Programs in School

The Role of the Careers Counsellor

Careers Rooms

Work Experience Programs

Career and Work Opportunities in the Community

Attitude of Parents and Community Members

Specific Programs for Girls.

Half the schools in the study ran specific Career Awareness Programs oriented to girls and to non-traditional career and school subject choices. One school, for example, ran a series of girls-only seminars in year 10 and 11 with female presenters representing a diversity of careers. Another school has been nationally recognised for its success in the field of equal opportunity. This school has participated in the first and second phases of the Trades Women on the Move project which involved non-traditional career options. However, as the Equal Opportunity Coordinator at the school comments, "The barriers to it outside the school are still very strong, with parental and community attitudes towards it as not an appropriate career for girls our major stumbling block". Several schools have also encouraged their students to watch equal opportunity programs through interactive television.

Several schools reported that while they did not run specific programs for girls, the diversity of courses, including an increase in technology subjects, tended to cater effectively for non-academic students of both genders. Materials and Technology with a focus on fabric, for example, was popular at one school with both boys and girls. Some schools ran girls-only classes for Practical Physics, Mathematics and Physical Education at Years 9-10 and girls-only night classes for non-traditional subjects. However, as one principal reported, this measure was really only a 'band-aid' approach that treated the symptom and not the real 'disease' of sex stereotyping within the broader community.

Career Awareness Programs in Schools.

In general Career awareness programs in the schools focused mainly on Year 10 but often also extended into Year 11. In most of the schools in the project very little was done prior to Year 10. The majority of the students interviewed at Year 9 indicated that they had some knowledge of careers programs but were very vague as to their format or purpose. The interviews with students indicated that girls responded more positively than the boys to the impact of the programs on their thinking about subject choices with ultimate career choices in mind. Some schools included a 'Careers Camp' as part of the overall program which often involved a week at a residential college in Melbourne. Where this occurred Careers Awareness programs were generally seen as being highly effective.

The Role of the Careers Counsellor.

This factor was mentioned most frequently by both girls and boys as being important in subject choices and career orientation. The results however were uneven. From the interviews with students it seemed that where a careers counsellor had occupied the role for some years then students demonstrated a clear valuing of the role. However, where the person had occupied the position for a short period of time then students seldom mentioned the "Careers Counsellor" as having a dominant place in their thinking. The observation provided a clear impression that the 'careers counsellor' per se was perhaps less important than the role being personalised for students over time.

In general the interviews indicated that girls more often than boys valued the personal factor in dealings with careers advisers (where officially termed as such or not). This was particularly noticeable in one of the schools where there were a number of teachers with a long history of service to the school. It was clearly evident in this situation that girls in particular placed a lot of trust in the accumulated wisdom and expertise of these teachers.

Careers Rooms

Closely associated with the role of careers advisers was the effectiveness of specially equipped 'careers rooms'. In the schools surveyed these varied from shelves set up in the Careers Adviser's office to a special room as an annex to the library. In one school a portable classroom was devoted entirely to career education and was well stocked with careers information including videos. In this situation students tended to regard the careers room as a place they could come to in spare periods and browse through materials. Where booklets are displayed on shelves as part of the career teacher's office students felt less inclined to go in and take the time to read through these materials. The comment of one Year 12 student illustrates how the combination of a well established careers adviser and careers room can be very effective:

> The careers room - and Mr. X, he's really obliging and helps, like he works out what you like and....I sort of well everybody thinks I'm sort of good with people, talking with people.

Work Experience Programs.

All schools in the project saw these as an integral part of their career education programs. Usually these programs occurred in Year 10 and were split into two separate weeks involving a different experience in each week. One school provided for work experience at the end of Year 11 after the formal program had been completed. This often enabled students to continue into paid Christmas jobs and in some cases provided part-time employment in the following year. Girls in particular appeared to benefit from this program as many of the jobs were in the shop assistant and tourism areas.

One school in a more isolated area organised the work experience program around a one week segment in Year 10 (usually in the local environment) and a two week segment in a city environment

(examples noted were Melbourne, Geelong, Bendigo and Adelaide). This program occurred in Year 11 and students interviewed regarded this experience as particularly useful. Not only did they gain a worthwhile block of work experience but they also developed personal management skills related to living in a city environment.

Career and Work Opportunities in the Community

More than 90% of students in Years 11 and 12 had a reasonably clear perception of career pathways and the subject combinations needed to realise these options. For girls these choices tended to fall along traditional lines involving nursing, welfare work, social work and to a lesser extent, teaching. In two areas employment in the local tourism industry figured highly for girls but not for boys. The two communities concerned depend on tourism for a large part of their commercial activity. One career teacher commented that there was general pattern of change in career choices for both boys and girls. Rather than farm work and apprenticeships boys were now tending to move towards diverse career choices in terms of tertiary study. In the past girls had tended to pursue traditional careers such as nursing, teaching and hairdressing, but these choices now included an increased focus on art and design, business, and the hospitality and recreation industries.

In almost all of the career options involving further study students were aware that they would need to leave the local community to achieve this end. In many of the responses involving students from horticultural areas or dairy farms the process of going on to further study was seen as inevitable as the marginal scale of economic viability on these farms made it virtually impossible for these students to think of a future working on them.

In one school in particular the work opportunities in the local community suitable for girls were considered to be very limited because of the rural decline and the impact of the recession. Many interviewed at Years 11 and 12 felt that this was a strong factor in a decision by girls to stay on and complete Year 12 and move away from the region and go on to tertiary education. Some of these respondents felt that the option for boys were more restricted and that there was an obligation for these students to stay in the community and help out on the family farm.

Other male students from this school and another school with a similar farming population felt that the most effective career pathway would be a skilled trade which could eventually be used on the farm.

In at least two schools girls said that they were less likely to leave the district completely and indicated that they would attempt to find employment in the town.

Attitude of Parents and Community Members

There was a perception of very strong support across all schools in the survey relating to parents assisting their children to stay on and complete Year 12. The reasons behind this perception are quite complex but broadly they may be tied back to economic concerns about the local community and the opportunities for a better lifestyle. This study confirmed the crucial role of parental support in girls' retention to year 12, a finding supported by Eatts and Symons (1993) and Poole, M., Langan-Fox J., and Ciavarella M. (1992).

The majority of students indicated that their parents had not progressed past Year 10 when they were at school and that these parents wanted their own offspring to have a much better education. A statement by a Year 11 student is typical of this attitude (in response to a question about going on to Year 12):

> 'My parents they just wanted, they just sort of want all of us to do it. They didn't like when my brother didn't do it. So I know what they want me to do, so I think that's sort of making me do it.'

The general economic downturn figured prominently in students' responses. In response to a question on why they were staying on to Year 12 many students said "Well there is nothing else to do." or "My parents told me I just have to go on."

Concluding Remarks

This section of the report examined factors which impinge on girls' perception of study in the senior secondary years and the relationship of these perceptions to subject choice and career options. While it is difficult to detect clear patterns across the range of schools surveyed there are nevertheless some interesting trends. These are as follows:

1. The role of 'careers counsellor' appeared to be very important for girls in particular. This role might be performed by any teacher with sufficient standing or experience but students need to feel secure in the support and guidance offered.
2. Work Experience programs were regarded as an essential part of careers and subject choice preparation. While girls tended to choose work programs along fairly traditional lines some chose programs in professional areas totally outside their normal experience. This often led to the structuring of subject choices to enable these students to pursue tertiary study in these areas.
3. Rural decline and the recession has had a major impact on career choice generally. The importance of getting the 'right' subject mix in years 11 and 12 was clearly indicated by girls so that they could complete Year 12 and move away from the region. Some of the girls felt that there were fewer community restraints on them in this regard. Boys were often expected to stay in the community, for example to help out on the family farm.
4. There was an almost universal acceptance by all students (boys and girls) that their parents expected them to stay on to complete Year 12 unless secure employment became available.

Factors Affecting Post-School Options

The following linked factors have been identified as influencing students' post-school options in terms of further study or work possibilities:

Parental and Community Expectations

Geographic Isolation

Role of School in Subject and Career Advice

Parental and Community Expectations

- Parental Perceptions of Children's Future Work Prospects

Parental support has been identified elsewhere in this report as a crucial factor in students' retention to Year 12. Most parents interviewed believed that there were very few or no future work prospects within the local community for their children and were encouraging them to complete Year 12 and then attempt further study or seek employment outside the local area. A high proportion of parents had not attained VCE or equivalent levels of education and therefore believed they lacked expertise in advising their children on subjects choices or study skills in VCE. As a result they tended to provide general support and rely heavily on the school's expertise in career and subject advice. As a result this makes the school's role crucial in terms of subject prerequisite guidance to students, the development of study skills, pastoral support, and general career advice. While most parents believed there were no local employment prospects for their children one exception to this pattern was the sub-group of parents in one school who believed that their children could gain local employment in the local tourist industry and hence stay in the town. However, these parents also believed that successful completion of year 12 was absolutely essential to these employment prospects.

- Parental and Community Influence on VCE Subject Offerings

Staff perceptions of this influence varied across schools. Teachers and administrators in some schools believed that the community expected the school to offer traditional academic subjects such as Mathematics and Chemistry rather than the newer subjects such as Information Technology, other Technology subjects and Asian languages. VCE subject offerings in some participant schools could

therefore be characterised as generally traditional ones. This was explained by one senior staff member at a school in the following terms:

Despite what the government says about the breadth of course that schools have got to offer, this enormous breadth, like LOTE, I don't believe the community thinks that. Most parents believe the school gives their kids a fair offering and are happy with the range the kids were able to do. How many wheat traders actually talk to the Japanese or the Chinese. I mean, let's face it, as a wheat grower, you don't actually do the bargaining. You rely on people in Melbourne to do that.

Clearly this diversity of subject offerings affects the post-school options of students. One school principal believed that the broad provision of practical subjects at VCE level at the school was a strong factor in effective retention of some students in VCE and also encouraged some of these students who in the past might have left school at Year 10 to pursue post-school further education in Art and Design study fields.

Geographic Isolation

This is universally recognised by school staff and parents as a critical factor in post-school options of students. The generally lower participation rates of rural students in tertiary and further education can be traced to a range of factors, but certainly geographic isolation from Higher Education sites was viewed by many staff and parents as the most important negative factor in post-school options. Clearly there is a considerable additional cost burden on families to support their children in meeting living-away-from-home expenses. One career teacher made sure that parents were aware of these costs when their children were in year 8, so that long-term planning to meet this cost could occur.

Many teachers and administrators commented as well on the range of problems students have in adjusting to living in bigger cities. Career teachers at several schools commented on the continuing failure of some better-than-average students to adjust to tertiary studies in Melbourne. As one VCE coordinator said:

In the last couple of years I have been very disappointed with several of our better students going to Melbourne and pulling out within three or four months, because they were good kids here and they got a good score and I thought fairly mature students I was really disappointed for them, but they obviously either chose a course that there weren't suited to or, and this is the case of the three students I'm thinking about, they were homesick.

Role of School in Subject and Career Choice

- Conceptualisation of Work and Career Futures in Australia

As indicated already, for a range of reasons the school plays a crucial role in the VCE options, subject choices, and post-school aspirations of many rural students. This role is currently carried out in a context of considerable uncertainty about the future viability of various kinds of employment in both rural and urban settings. The restructuring of much primary and secondary industry, the increasing casualisation of the work force, and the shifts to greater employment in the tourist, leisure and information industries in Australia have produced considerable challenges to the provision of effective career advice for this rural student group. The recent Mayer (1992) and Finn (1991) Reports have theorised the future of broad employment in Australia in terms of the need for increased flexible generic rather than specialist skilling and reskilling of the current and potential work force. Career advice in the schools in the study generally acknowledges a consequent double focus. An effort is made to match students' individual aptitudes and interests to existing specific work or career opportunities, while at the same time students are encouraged to 'keep career options open' through diverse subject choices.

Distance Education Programs in CEP Schools

The eight schools studied in the project are the recipients and presenters of a range of distance education courses, subjects and special programs. This provision includes interactive two-way television programs such as the Homework Hotline with teachers as guest presenters of VCE subjects and topic advice. Other programs include correspondence school delivery of subjects through print as well as audio and fax-linked conferences for subjects where schools are formally linked by a cluster system.

Teachers and administrators at five of the participant schools considered the use of telematics to be integral to their VCE program and as an effective means to supplement subject offerings and increase student groups to viable sizes. The telematics network was perceived as reinforcing a sense of collegiality between schools. The other three schools perceived telematics to be only a very minor part of their course offerings.

Perceived Positives of Distance Education

- Increased Subject Choice

Telematics offered VCE students a range of additional subjects. Some, such as Technology units, were provided through cooperative links and shared resources with other schools supported by personal visits to recipient schools by the presenters of the subject. More than one senior administrator in schools believed the telematics provision had significantly expanded the number of viable VCE subjects for students in the region. One principal claimed that through further innovative delivery methods and additional training for staff telematics could be developed to a greater extent to meet the needs of rural students.

- Student Success Rates with Telematics Learning

A principal claimed that Telematics teaching had proved very successful because of the following factors:

> Because of the amount of work in delivery by the teacher it is always exceptionally well taught, and because of the fact that the teacher has to concentrate more, it is usually very effective. We have got very good results from this method.

Criticisms of Distance Education

- Problems with Delivery

Several teachers cited a range of problems including technical failure, problems with inappropriate lunch-hour times for delivery of interactive television programs, and the lack of expertise of teachers and students in using the different technologies effectively. One teacher who has used audio and video links to teach and receive subjects from teachers in other schools claimed that the medium tended to lose effectiveness significantly once group sizes exceeded eight students.

- Demands on Students and Staff

Many of the teachers with first-hand experience of telematics and Correspondence school delivery of subjects pointed out the need for participant students to be highly organised, strongly motivated, and very capable independent workers. This perception was confirmed by many students in the study. The increase in the cost of subject enrolment from $30 to $90 was also perceived as a problem in terms of access for some students. Teachers perceived that there was a strong need for extensive face-to-face teacher support to supplement this delivery method. There is clearly a need for strong in-service support for teachers in using this approach, a conclusion supported by D'Cruz (1990).

Recommendations from the Findings and *abbreviated commentary*

Recommendation 1.

That education systems recognise the centrality of effective career and subject counselling to students in their retention to year 12, publicise the relationship and provide appropriate staff and resources to rural schools to support the activity.

The current and projected staffing budget cuts for secondary schools is likely to have a very serious negative effect on the quality of career and subject advice relating to student retention to VCE. Many of the positive features of this career education provision listed in this study are currently in jeopardy.

Further, the current economic recession is having a profoundly negative effect on rural towns in Victoria, which, as the report highlights, has consequent effects on students' career choices, possible local work experience options, and retention to year 12. The recession is ironically enforcing far greater student participation in schooling to year 12 and beyond. This has the effect of increasing significantly the work involved in effective career education in rural schools. Many students now remain at school to Year 12 without being clear about post-school goals or positive about post-year 12 options.

These factors combine to reinforce the importance of this recommendation.

Recommendation 2.

That the Country Areas Program continue supporting at cluster and statewide levels the development of diverse subject offerings and modes of delivery to give students a broader range of options and subject experiences.

The effectiveness of career education programs in schools is partly dependent on the diversity of subject choices available to rural students before and during VCE to guide their career decisions. The maintenance of diverse subject choices at these levels of schooling, including traditional academic subjects as well as more practical subjects, is an important issue in terms of student retention to year 12 and effective vocational pathways.

Recommendation 3.

That education systems provide professional support and resources the effective use of distance education options in teaching and learning.

The continued development of a range of means of providing learning at a distance is a further important element of providing a broad curriculum to rural students.

Recommendation 4.

That the exemplary practices of schools in the study, including work experience practices and close links between school and community, in relation to career education be publicised widely by CAP groups and education systems.

Career education programs and work experience in years 10-12 are very important factors for many students in encouraging them to complete year 12 studies and in ensuring they are successful. These programs and their success should be more widely acknowledged, publicised and protected in cuts to education budgets and school programs that appear to discriminate poorly between good and less effective activities.

The school linked with extensive community participation in all aspects of the schools' operation were clearly of fundamental importance to effective student retention to Year 12 and subsequent pursuit of career options.

Recommendation 5.

That schools and education systems contribute collaboratively to strategies that integrate work and career education into all curriculum areas.

The range of programs and activities undertaken in these schools and described in detail under the section on School Programs and Structure in Relation to Career Education make it clear that such integration is important to students' retention and success.

Recommendation 6.

That rural schools continue to support and publicise successful practices in terms of expanding girls' options in relation to subject choices, career pathways and post-school choices, such as indicated in this study.

A range of practices associated with improved retention and life options for girls in rural schools should be supported. These include those related to: specific programs for girls in non-traditional school subject and career choices; career awareness programs for students, teachers and community members; retaining and supporting experienced Careers Teachers and areas set aside as careers rooms; getting appropriate subject mixes in years 11 and 12; and supporting work experience programs, particularly those providing non-traditional experiences for girls.

Recommendation 7.

That a systemic approach to career education be implemented throughout Victorian secondary State schools where the role of career education is strongly linked to the VCE structure and curriculum, and monitored and publicised by School Councils and education systems.

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